

XLII.—On the Affinities of the Genus *Pothocites*, Paterson.
By ROBERT KIDSTON.

PROBABLY no genus of Carboniferous fossil plants has created so much interest amongst botanists as *Pothocites*.

The first specimen was described by Dr. R. Paterson in 1840 *, and was regarded by him as a Monocotyledon "either belonging to an extinct species of the genus *Poithos*, or to some extinct genus of plants closely related to it." This view has generally been accepted by subsequent writers †.

The specimen remained unique until 1876, when Mr. R. Etheridge, Junr., described a second species, *P. Patersoni* ‡.

From an examination of both of these plants I have been led for some time to doubt their Monocotyledonous nature; and this view is now proved correct by a specimen collected by Mr. T. Stock from the cement-stone group of the calciferous sandstone series, Glencartholm, Eskdale.

This specimen, which I provisionally name *Pothocites calamitoides*, is fully 7 inches long; of this the spike occupies about $5\frac{1}{2}$ inches; and it is, as far as I am aware, the first specimen in which this plant is shown up to its extremity.

The spike contains eight segments; and the stem, which is jointed as in ordinary *Calamites*, shows three nodes.

Leaves are given off from the nodal regions of the spike and stem. The jointed nature of the stem is equally well shown in *P. Patersoni*, Ether.

The small projection from the side of the stem in Dr. Paterson's original specimen, previously supposed to be the origin of the spathe, is the remains of a branch which bore a similar spike, as an example shows two such spikes terminating the branches of a dichotomous stem.

The so-called stellate "perianth-segments" are probably the deflected segments of sporangia which have shed their spores, and their component parts do not spring from a central tubercle, as represented in Dr. Paterson's enlarged sketch: what has been mistaken for the central column is merely a central depression; and the appearance caused when these minute bodies are viewed with lateral illumination has probably led to this error.

From the facts brought out by the recently found specimen and a careful reexamination of the original *P. Grantoni*,

* Trans. Bot. Soc. Edin. vol. i. part 1 (1841).

† Prof. Balfour, 'Vegetable Palæontology;' Carruthers, Geol. Mag. vol. ix. (1872); Geikie, 'Text-book of Geology,' 1882, p. 732.

‡ Trans. Bot. Soc. Edin. vol. xii. pp. 151, 163 (1876).

Pater., I am inevitably led to the conclusion that *Pothocites* is not the inflorescence of an Aroid, as has hitherto generally been supposed, but the fructification of a *Calamitaceous* plant.

At an early date I hope to illustrate and describe these interesting fossil plants more in detail.

P.S.—Since writing the above, my attention has been called to a lecture by Prof. Williamson, in which some doubts are expressed as to the usually accepted notions of the affinities of *Pothocites*. After alluding to the modern reference of *Antholites* to the group of gymnospermous exogens, he adds, "I expect that further research will lead to some similar change in reference to *Pothocites*" ('Essays and Addresses by Professors and Lecturers of the Owens College, Manchester,' 1874).

XLIII.—On some apparently undescribed *Rhopalocera*.

By W. L. DISTANT.

Melanitis Libya, n. sp.

Wings above fuliginous brown; anterior wings with a large and very dark fuscous subapical patch, containing two large white spots, the margins of which are pale bluish; the first of these spots is subquadrate, placed above and resting upon the first median nervule; the second is rounded, placed beneath the outer edge of the upper spot and between the first and second median nervules. Anterior wings beneath dull ochraceous; basal portion beneath cell and second median nervule, and three transverse fasciæ crossing cell (the first somewhat obscure and the outer one broadest), dark and dull violaceous; beyond the cell the wing is crossed by two very obscure transverse fasciæ, concolorous, but darker in hue than the area on which they are placed, and a small, distinct, rounded white spot between the first and second median nervules. Posterior wings beneath dark and dull violaceous; costal area from above and including extreme base of cell ochraceous; this colour is continued downwards beyond discocellular nervules in a somewhat indistinct streak; outer margin brownish, and a submarginal row of very small and indistinct whitish spots placed between the nervules. Body and legs more or less concolorous with wings.

Expanse of wings 82 millim.

Hab. Masassi, East Africa.